



Internal Use Only

website:<http://biz.LGservice.com>

PLASMA TV

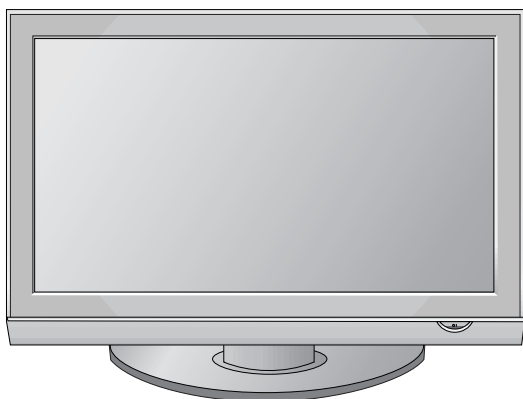
SERVICE MANUAL

CHASSIS : PD84A

MODEL : 42PG6900 42PG6900-ZF

CAUTION

BEFORE SERVICING THE CHASSIS,
READ THE SAFETY PRECAUTIONS IN THIS MANUAL.



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SAFETY PRECAUTIONS

IMPORTANT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These parts are identified by \triangle in the Schematic Diagram and Replacement Parts List.

It is essential that these special safety parts should be replaced with the same components as recommended in this manual to prevent X-RADIATION, Shock, Fire, or other Hazards.

Do not modify the original design without permission of manufacturer.

General Guidance

An Isolation Transformer should always be used during the servicing of a receiver whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks.

It will also protect the receiver and its components from being damaged by accidental shorts of the circuitry that may be inadvertently introduced during the service operation.

If any fuse (or Fusible Resistor) in this monitor is blown, replace it with the specified.

When replacing a high wattage resistor (Oxide Metal Film Resistor, over 1W), keep the resistor 10mm away from PCB.

Keep wires away from high voltage or high temperature parts.

Due to high vacuum and large surface area of picture tube, extreme care should be used in handling the Picture Tube. Do not lift the Picture tube by its Neck.

Leakage Current Cold Check(Antenna Cold Check)

With the instrument AC plug removed from AC source, connect an electrical jumper across the two AC plug prongs. Place the AC switch in the on position, connect one lead of ohm-meter to the AC plug prongs tied together and touch other ohm-meter lead in turn to each exposed metallic parts such as antenna terminals, phone jacks, etc.

If the exposed metallic part has a return path to the chassis, the measured resistance should be between $1M\Omega$ and $5.2M\Omega$.

When the exposed metal has no return path to the chassis the reading must be infinite.

An other abnormality exists that must be corrected before the receiver is returned to the customer.

Leakage Current Hot Check (See below Figure)

Plug the AC cord directly into the AC outlet.

Do not use a line Isolation Transformer during this check.

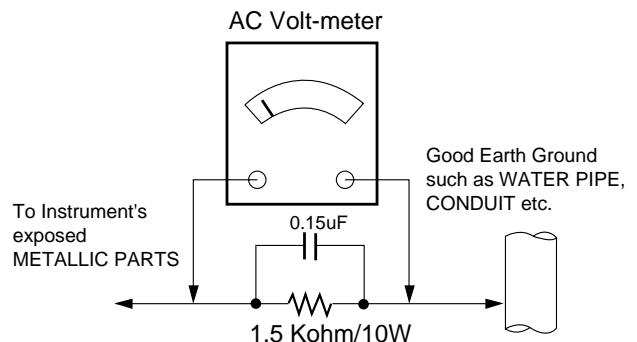
Connect 1.5K/10watt resistor in parallel with a 0.15uF capacitor between a known good earth ground (Water Pipe, Conduit, etc.) and the exposed metallic parts.

Measure the AC voltage across the resistor using AC voltmeter with 1000 ohms/volt or more sensitivity.

Reverse plug the AC cord into the AC outlet and repeat AC voltage measurements for each exposed metallic part. Any voltage measured must not exceed 0.75 volt RMS which corresponds to 0.5mA.

In case any measurement is out of the limits specified, there is possibility of shock hazard and the set must be checked and repaired before it is returned to the customer.

Leakage Current Hot Check circuit



SPECIFICATIONS

NOTE : Specifications and others are subject to change without notice for improvement.

√ Application Range

This spec is applied to the PDP-DVR TV used PD84A Chassis.

Chassis	Model Name	Market	Brand	Remark
PD84A	42PG6900 50PG6900 42PG6910 50PG6910	UK/Austria/Belgium/Croatia/Czech/Denmark/Finland /France/Germany/Hungary/Italy/Luxembourg/Netherlands/ Poland/Russia/Spain/Sweden/Switzerland	LG	

√ Specification

Each part is tested as below without special appointment.

- 1) Temperature : 25±5°C (77±9°F), CST : 40±5
- 2) Relative Humidity: 65±10%
- 3) Power Voltage: Standard Input voltage (100-240V~, 50/60Hz)
* Standard Voltage of each product is marked by models.
- 4) Specification and performance of each parts are followed each drawing and specification by part number in accordance with SBOM.
- 5) The receiver must be operated for about 20 minutes prior to the adjustment.

√ Test Method

- 1) Performance : LGE TV test method followed.
- 2) Demanded other specification
Safety : CE, IEC specification
EMC : CE, IEC

Model	Market	Appliance	Remark
42PG6900 50PG6900 42PG6910 50PG6910	UK/Austria/Belgium/Croatia/Czech/Denmark/Finland /France/Germany/Hungary/Italy/Luxembourg /Netherlands/Poland/Russia/Spain/Sweden/Switzerland	Safety : IEC/EN60065, EMI : EN55013 EMS : EN55020	TEST

√ Module General Specification

1) 42" Module

No	Item	Specification	Remark
1	Display Screen Device	42 inch Wide Color Display Module	PDP
2	Aspect Ratio	16:9	
3	PDP Module	PDP42G1####, RGB Closed Type Glass Filter	
4	Operating Environment	1)Temp. : 0 ~ 40deg 2)Humidity : 20 ~ 80%	LGE SPEC.
5	Storage Environment	3)Temp. : -20 ~ 60deg 4)Humidity : 10 ~ 90%	
6	Input Voltage	100-240V~, 50/60Hz	Maker : LG

2) 50" Module

No	Item	Specification	Remark
1	Display Screen Device	50 inch Wide Color Display Module	PDP
2	Aspect Ratio	16:9	
3	PDP Module	PDP50G1####, RGB Closed Type Glass Filter	
4	Operating Environment	1)Temp. : 0 ~ 40deg 2)Humidity : 20 ~ 80%	LGE SPEC.
5	Storage Environment	3)Temp. : -20 ~ 60deg 4)Humidity : 10 ~ 90%	
6	Input Voltage	100-240V~, 50/60Hz	Maker : LG

√ Model General Specification

No	Item	Specification	Remark
1	Market	UK, France, Germany, Spain, Sweden, Finland, Italy	
2	Broadcasting system	1) PAL-BG 2) PAL-DK 3) PAL-I, I' 4) DVB-T(ID TV) 5) SECAM-L/L'	
3	Receiving system	Analog: Upper Heterodyne Digital: COFDM	
4	Scart Jack (2EA)	PAL, SECAM	Scart1 is Full scart and support RF- OUT(Analog). Scart2 is Half scart and support DTV/MNT- OUT.
5	Video Input (2EA)	PAL, SECAM, NTSC	4 System: PAL, SECAM, NTSC, PAL60
6	S-Video Input (1EA)	PAL, SECAM, NTSC	4 System: PAL, SECAM, NTSC, PAL60
7	Component Input (1EA)	Y/Cb/Cr, Y/Pb/Pr	
8	RGB Input	RGB-PC	
9	HDMI Input(3EA)	HDMI-PC(HDMI 1 only) HDMI-DTV & SOUND	Rear 2EA Side 1EA
10	Audio Input (4EA)	PC Audio, Component, AV	L/R Input

ADJUSTMENT INSTRUCTION

1. Application Range

This spec sheet is applied all of the PD84A chassis by manufacturing LG TV Plant or sort plants.

2. Specification

Caution: The module keeping condition

- The module keeping condition: The normal temperature condition(more than 15°C)
--> Immediately the line supply.
- The module keeping condition: 0°C
--> The module must be kept for more than 2 hours at the normal temperature.
- The module keeping condition: -20°C
--> The module must be kept for more than 3 hours at the normal temperature.
- The case of Gu-mi factory at the winter season.
--> The module must be kept for more than 5 minutes at the heating zone(40°C~45°C).

- (1) Because this is not a hot chassis, it is not necessary to use an isolation transformer.
However, the use of isolation transformer will help protect test instrument.
- (2) Adjustment must be done in the correct order.
- (3) The adjustment must be performed in the circumstance of 25±5°C of temperature and 65±10% of relative humidity if there is no specific designation.
- (4) The input voltage of the receiver must keep 100~240V, 50/60Hz.
- (5) The receiver must be operated for about 5 minutes prior to the adjustment.

- After RGB Full White in HEAT-RUN Mode, the receiver must be operated prior to the adjustment.
- Enter into HEAT-RUN MODE
 - 1) Press the POWER ON KEY on R/C for adjustment.
 - 2) OSD display and screen display PATTERN MODE.

- Set is activated HEAT run without signal generator in this mode.
- Caution: If you turn on a still screen more than 20 minutes (Especially digital pattern, cross hatch pattern), an after image may be occur in the black level part of the screen.

PCB assembly Adjustment Method

Caution: Using 'power on' button of the control R/C, power on TV.

[ADC Calibration Protocol (RS232)

NO	Item	CMD 1	CMD 2	Data 0	
ADC adjust	ADC Adjust	A	D	1	0
Data Read	ADC Parameter	A	D	2	0
	Digital Data	A	D	3	0
Default Write	ADC Parameter (Average)	A	D	4	0
	Adjustment Confirmation	A	D	9	9
Enter The ADJ MODE	ADJ Mode In	A	D	0	0
	ADJ Mode Out	A	D	9	0

- Baud rate : 115200 bps
- RS232 Host : PC
- echo : none

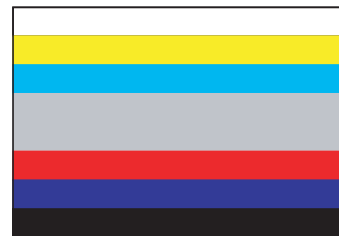
3. ADC Adjustment

ADC	RF / AV / S-VIDEO	Component	RGB-PC	SCART-RGB
MSPG925FS	PAL			
	INPUT SELECT	AV3		
	Model: 202 (PAL-BGDHI) Pattern: 65 * PAL 7 Color Bar		Model: 215 (720P) Pattern: 65 * 720P/50Hz 7 Color Bar	Model: 3 (1024*768 60Hz) Pattern: 65 7 Color Bar
				Model: 232 (SCART-RGB) Pattern: 8 8 Color 16 step Gray

3-1. Adjustment of AV(CVBS)

- Standard equipment : 802F Pattern Generator. Master Pattern Generator(MSPG-925, etc) or same product
- Required Equipment
 - 1) Remote controller for adjustment
 - 2) MSPG-925FS Pattern Generator (Which has Video Signal: 7 Color Bar Pattern shown in Fig. 1).
- Model: 202 / Pattern: 65 EC and FC model use PAL-BGDHI (composite signal)

- (1) Input the Video signal: 7 color Bar signal into AV3.
- (2) Set the PSM to Vivid mode in the Picture menu



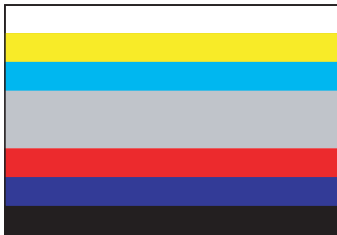
<Fig. 1> Color Bar Signal

- (3) Press INSTANT key on R/C for adjustment.
- (4) Press the G (Vol. +) key operate to set, then it becomes automatically.
Auto-RGB OK means completed adjustment

3-2. Adjustment of Component

- Standard equipment : 802F Pattern Generator. Master Pattern Generator(MSPG-925, etc) or same product
- Required Equipments
 - 1) Remote controller for adjustment
 - 2) MSPG-925FS Pattern Generator (Which has Video Signal: 7 Color Bar Pattern shown in Fig. 1).
==> Model: 215 / Pattern: 65

- (1) Input the Component 720p/50Hz 7 Color Bar(MSPG-925FS model: 215, pattern: 65) signal into Component.
- (2) Set the PSM to Vivid mode in the Picture menu.



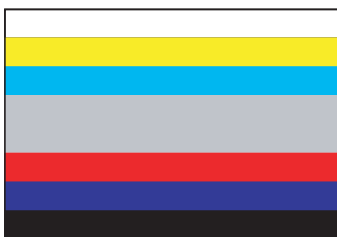
<Fig. 1> Color Bar Signal

- (3) Press IN-START key on R/C for adjustment
- (4) Press the G (Vol. +) key to operate the set, then it becomes automatically
- (5) Auto-RGB OK means the adjustment is completed

3-3. Adjustment of RGB

- Standard equipment: PC Pattern Generator(VG828, VG854, 801GF, MSP3240A) or same product
- Required Equipments
 - 1) Remote controller for adjustment
 - 2) MSPG-925FS Pattern Generator (Which has Video Signal: 7 Color Bar Pattern shown in Fig. 1).

- (1) Input the PC 1024x768 @ 60Hz 7 color bar (MSPG-925FS, Model: 3, Pattern: 65) into RGB. (using D-sub to D-sub cable)
- (2) Set the PSM to Vivid mode in Picture menu.



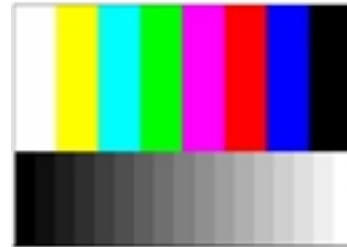
<Fig. 1> Color Bar Signal

- (3) Press the IN-START key on R/C for adjustment.
- (4) Press the G (Vol. +) key operate To set , then it becomes automatically.
- (5) Auto-RGB OK means adjustment is completed.
- (6) Press the G (Vol. +) key to operate the set, then it becomes automatically
- (7) Auto-RGB OK means the adjustment is completed

3-4. Adjustment of SCART-RGB

- Standard equipment : Master Pattern Generator(MSPG-925, etc) or same product
- Required Equipments
 - 1) Remote controller for adjustment
 - 2) MSPG-925FS Pattern Generator (Which has Video Signal: 8 Color Bar Pattern shown in Fig. 2).

- (1) Input the SCART-RGB 8 Color Bar(MSPG-925FS model: 232, pattern: 8) signal into AV1. (using Full Scart Cable)
- (2) Set the PSM to Vivid mode in the Picture menu.



<Fig. 2> 8 Color 16 Step Gray Signal

- (3) Press IN-START key on R/C for adjustment
- (4) Press the G (Vol. +) key to operate the set, then it becomes automatically
- (5) Auto-RGB OK means the adjustment is completed

4. Channel Memory Setting Method

Recovery the channel memory by adjust R/C.

You can set channel memory by R/C for adjustment

- (1) Press ADJ key on R/C for adjustment.
- (2) Press VOL + key on "Channel Recover"

5. PCMCIA CARD Checking Method

You must adjust DTV ## Channel and insert PCMCIA CARD to socket.

- (1) If PCMCIA CARD works normally, normal signals display on screen.
But it works abnormally, "No CA module" words display on screen.

[Caution : Before power off, input mode must be changed RF mode.

SET Assembly Adjustment Method

Caution: Each PCB assembly must be checked by check JIG set.
(Because power PCB Assembly damages to PDP Module, especially be careful)

6. 50" POWER PCB Ass'y Voltage Adjustment (Va, Vs Voltage Adjustment)

6-1. Model Name : 50PG6900,50PG6910

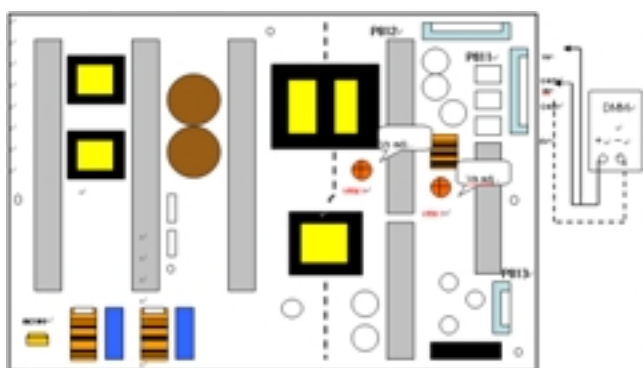
6-2. Adjustment Method

(1) Va Adjustment

- 1) After receiving 100% Full White Pattern, HEAT RUN.
- 2) Connect + terminal of D. M..M. to Va pin of P811, connect - terminal to GND pin of P811.
- 3) After turning VR901, voltage of D.M.M adjustment as same as Va voltage which on label of panel right/top (deviation; $\pm 0.5V$)

(2) Vs Adjustment

- 1) Input signal : RF noise signal
- 2) Connect + terminal of D. M..M. to Vs pin of P811, connect - terminal to GND pin of P811.
- 3) After turning VR 951, voltage of D.M.M adjustment as same as Vs voltage which on label of panel right/top (deviation ; $\pm 0.5V$)



<Fig. 3> 50inch Power PCB Ass'y Voltage adjustment

7. 42" POWER PCB Ass'y Voltage Adjustment (Va, Vs Voltage Adjustment)

7-1. Model Name: 42PG6900,42PG6910

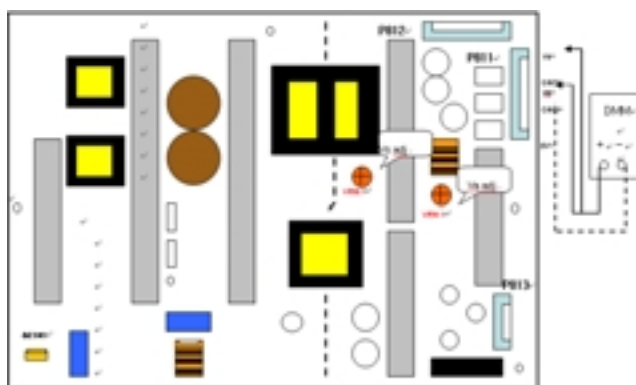
7-2. Adjustment Method

(1) Va Adjustment

- 1) After receiving 100% Full White Pattern, HEAT RUN.
- 2) Connect + terminal of D. M..M. to Va pin of P811, connect - terminal to GND pin of P811.
- 3) After turning VR901, voltage of D.M.M adjustment as same as Va voltage which on label of panel right/top (deviation; $\pm 0.5V$)

(2) Vs Adjustment

- 1) Input signal : RF noise signal
- 2) Connect + terminal of D. M..M. to Vs pin of P811, connect - terminal to GND pin of P811.
- 3) After turning VR 951, voltage of D.M.M adjustment as same as Vs voltage which on label of panel right/top (deviation ; $\pm 0.5V$)



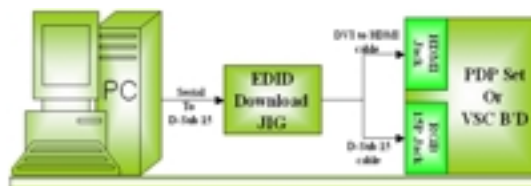
<Fig. 4> 42inch Power PCB Ass'y Voltage adjustment

8. EDID(The Extended Display Identification Data) / DDC (Display Data Channel) Download

8-1. Required Test Equipment

- (1) Adjusting PC with S/W for writing EDID Data.(S/W: EDID TESTER Ver.2.5)
- (2) A Jig for EDID Download
- (3) Cable : Serial(9Pin or USB) to D-sub 15Pin cable, D-sub 15Pin cable, DVI to HDMI cable.

8-2. Setting of Device



<Fig. 5> Connection Diagram of DDC download

8-3. Preparation for Adjustment

- (1) Connect the Set, EDID Download Jig., PC & Cable
- (2) Turn on the PC & EDID Download Jig. Set up the S/W option
- (3) Power on the Set

8-4. Sequence of Adjustment

(1) EDID Download

- 1) Init the data
- 2) Load the EDID data.(Open File)
[Analog file] (for RGB)
[Digital file] (for HDMI)
- 3) Set the S/W to download.
- 4) Push the "Write Data & Verify" button. And confirm "Yes"
- 5) If the writing is finished, you will see the "OK" message.
If TV has four HDMI INPUT, you must download four times for each HDMI.

(2) EDID DATA

- 1) Analog RGB

Detail EDID Options are below (, , , ,)

Product ID

Model Name	Product ID	Product ID	
		Hex	EDID Table
50PG6900	50162	C3F2	F2C3
42PG6900	40311	9D77	779D
50PG6910	50189	C40D	0DC4
42PG6910	40343	9D97	979D

Serial No: Controlled on production line.

Week, Year: Controlled on production line:

ex) Week: '03' ==> '03'

Year: '2006' ==> '10'

Model Name(Hex):

Model Name	Model Name(Hex)
50PG6900	00 00 00 FC 00 35 30 50 47 36 39 30 30 0A 20 20 20 20
42PG6900	00 00 00 FC 00 34 32 50 47 36 39 30 30 0A 20 20 20 20
50PG6910	00 00 00 FC 00 35 30 50 47 36 39 31 30 0A 20 20 20 20
42PG6910	00 00 00 FC 00 34 32 50 47 36 39 31 30 0A 20 20 20 20

Checksum: Changeable by total EDID data.

2) HDMI

Detail EDID Options are below (, , , ,)

Product ID

Model Name	Product ID	Product ID	
		Hex	EDID Table
50PG6900	50162	C3F2	F2C3
42PG6900	40311	9D77	779D
50PG6910	50189	C40D	0DC4
42PG6910	40343	9D97	979D

Serial No: Controlled on production line.

Week, Year: Controlled on production line:

ex) Week: '03' ==> '03'

Year: '2006' ==> '10'

Model Name(Hex):

Model Name	Model Name(Hex)
50PG6900	00 00 00 FC 00 35 30 50 47 36 39 30 30 0A 20 20 20 20
42PG6900	00 00 00 FC 00 34 32 50 47 36 39 30 30 0A 20 20 20 20
50PG6910	00 00 00 FC 00 35 30 50 47 36 39 31 30 0A 20 20 20 20
42PG6910	00 00 00 FC 00 34 32 50 47 36 39 31 30 0A 20 20 20 20

Checksum: Changeable by total EDID data.

physical address : ex) HDMI 1 : 10, HDMI 2 : 20 ~ HDMI 3 : 30

[EDID Download is needed HDMI1~HDMI3.

Before adjusting White-balance , the AV ADC should be done.
If ADC status were "NG", Need to ADC adjustment.

9. Adjustment of White Balance

9-1. Required Equipment

- (1) Remote controller for adjustment
- (2) Color Analyzer (CS-1000, CA-100,100+,CA-210 or same product) : CH 10 (PDP)
[Please adjust CA-210, CA-100+ by CS-1000 before measuring
- (3) Auto W/B adjustment instrument(only for Auto adjustment)
- (4) AV Pattern Generator
- (5) 15 Pin D-Sub Jack(RGB) is connected to the AUTO W/B EQUIPMENT.

9-2. AUTO White Balance Process.

Adjust Process will start by execute I2C Command (Inner pattern (0xF3, 0xFF)).

- Color temperature standards according to CSM and Module

CSM	PLASMA
Cool	11000K
Medium	9300K
Warm	6500K

- CS-1000/CA-100+/CA-210(CH 10) White balance adjustment coordinate and color temperature

CSM	Color Cordinate		Temp	Δ uv
	x	y		
Cool	0.276±0.002	0.283±0.002	11000K	0.000
Medium	0.285±0.002	0.293±0.002	9300K	0.000
Warm	0.313±0.002	0.329±0.002	6500K	0.003

9-3. Manual W/B Process

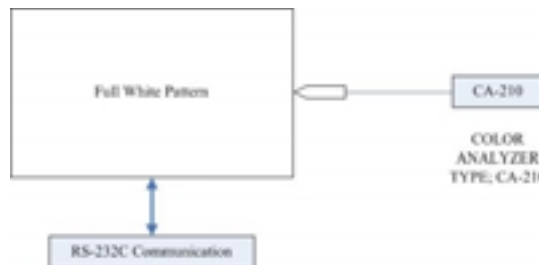
(using adjusts Remote control)

- (1) After enter Service Mode by pushing "ADJ" key,
- (2) Enter White Pattern off of service mode, and change off -> on.
- (3) Enter "W/B ADJUST" by pushing "G" key at "3. W/B ADJUST".

PC (for communication through RS-232C) ==> UART Baud rate : 115200 bps

9-4. Connecting Picture of the Measuring Instrument (On Automatic control)

Inside PATTERN is used when W/B is controlled. Connect to auto controller or push control R/C IN-START —> Enter the mode of White-Balance, the pattern will come out.



<Fig. 6> Connection Diagram of Auto W/B Adjustment

- [Auto-control interface and directions

1. Adjust in the place where the influx of light like floodlight around is blocked. (illumination is less than 10ux).
2. Measure and adjust after sticking the Color Analyzer (CA-100+, CA210) to the side of the module.
3. Aging time
After aging start, keep the Power on (no suspension of power supply) and heat-run over 15 minutes

- Auto adjustment Map(I2C)

(1) I2C (100K BPS)

(2) COMMUNICATION START

START		6E		A		STOP	50Ms
-------	--	----	--	---	--	------	------

#Until ACK BIT goes LOW, Repeat it.

(3) Command form.

Command form use DDC2AB standard communication protocol.

START	6E	A	50	A	LEN	A	03	A	CMD	A	00	A	VAL	A	CS	A	STOP
-------	----	---	----	---	-----	---	----	---	-----	---	----	---	-----	---	----	---	------

- a. LEN: DATA BYTE number to send.
- b. CMD: Command language that monitor executes.
- c. VAL: FOS DATA
- d. CS: Dada's CHECHSUM that transmit
- e. DELAY: 50MS
- f. A: Acknowledge

(4) Adjustment Commands (LENGTH = 84)

No.	Adjustment Contents	CMD(hex)	ADR	VAL[HEX]	Description
1	FACTORY ON	E0	00	00	Factory mode on
2	FACTORY OFF	E2	00	00	Factory mode off
3	EEPROM ALL INIT.	E4	00	00	EEPROM All clear
4	EEPROM Read	E7	00	00	EEPROM Read
5	EEPROM Write	E8	00	data	EEPROM Write by some values
6	COLOR SAVE (R/G/B cutoff, Drive, Contrast, Bright)	EB	00	00	Color Save
7	H POSITION	20	00	00 – 64	They have different range each mode FOS Adjustment
8	V POSITION	30	00	00 – 64	
9	CLOCK	90	00	00 – 64	
10	PHASE	92	00	00 – 64	
11	R DRIVE	16	00 : cool 01 : medium 02 : warm	00 – 80	Drive adjustment
12	G DRIVE	18	00 : cool 01 : medium 02 : warm	00 – 80	
13	B DRIVE	1A	00 : cool 01 : medium 02 : warm	00 – 80	
14	R CUTOFF	80	00	00 – 7F	Offset adjustment
15	G CUTOFF	82	00	00 – 7F	
16	B CUTOFF	84	00	00 – 7F	
17	BRIGHT	10	00	00 – 3F	Bright adjustment
19	CONTRAST	12	00	00 – 64	Luminance adjustment
20	AUTO_COLOR_ ADJUST	F1	00	02	Auto COLOR Adjustment
21	CHANGE_COLOR_TEMP	F2	00	0,1,2,3	0: Cool 1: Medium 2: Warm 3: User
22	White Pattern	F3	00	00,FF	00: White pattern off FF: White pattern on
23	AUTO_INPUTCHANGE	F4	00	0,10,20,30, 40,60,90	0 : TV 10 : DTV 20 : SCART1 30 : SCART2 40 : Component 60 : RGB 90 : HDMI

(5) EEPROM DATA READ

1) Signal TABLE



2) Command Set

No.	Adjustment contents	CMD(hex)	ADH(hex)	ADL(hex)	Details
1	EEPROM READ	E7	A0	0	0-Page 0~7F Read
2				80	0-Page 80~FF Read
3			A2	0	1-Page 0~7F Read
4				80	1-Page 80~FF Read
5			A4	0	2-Page 0~7F Read
6				80	2-Page 80~FF Read
7			A6	0	3-Page 0~7F Read
8				80	3-Page 80~FF Read

To read the appointment Address of E2PROM by 128(80h)-byte

(6) EEPROM Data Write(serial number D/L)

1) Signal TABLE

CMD	LENGTH	ADH	ADL	DATA_1	...	Data_n	CS	DELAY
-----	--------	-----	-----	--------	-----	--------	----	-------

CMD : 8Eh
 LENGTH : 84h+Byte
 ADH : E2PROM Slave Address (A0, A2, A4, A6, A8),
 Not 00h (Reserved by Buffer To EEPROM)
 ADL : E2PROM Sub Address (00~FF)
 Data : Write data
 CS : CMD + LENGTH + ADH + ADL + Data_1 + ... + Data_n

2) Command Set

No.	Adjust mode	CMD(hex)	LENGTH(hex)	Description
1	EEPROM WRITE	E8	94	16-Byte Write
2			84+n	n-byte Write

* Description

FOS Default write : <7mode data> write
 Vtotal, V_Frequency, Sync_Polarity, Htotal, Hstart, Vstart, 0,
 Phase
 Data write : Model Name and Serial Number write in
 EEPROM,.

Delay : 20ms

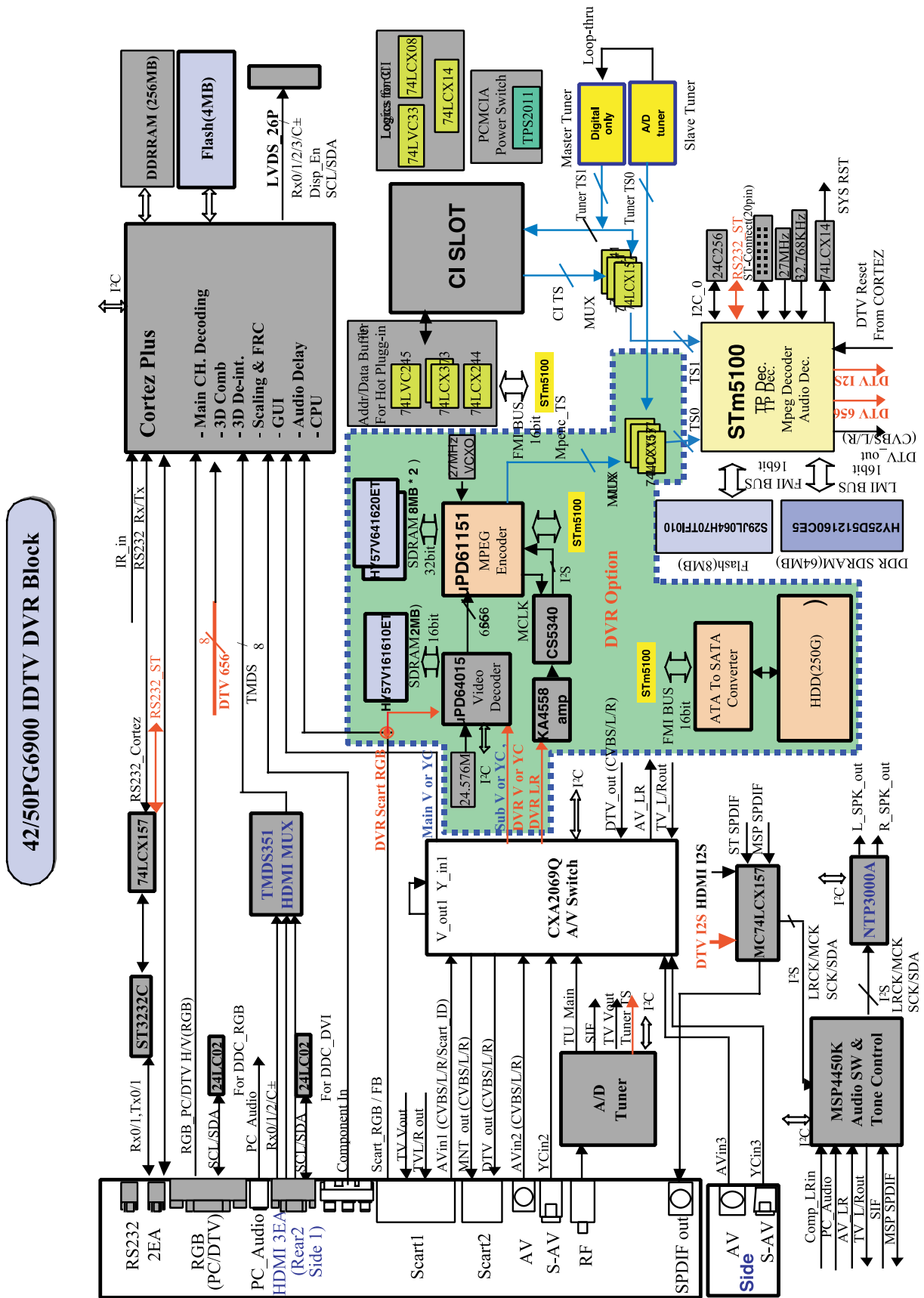
3) Command Set

No.	Adjust mode	CMD(hex)	LENGTH(hex)	Description
1	EEPROM WRITE	A0h	84h+n	n-bytes Write (n = 1~16)

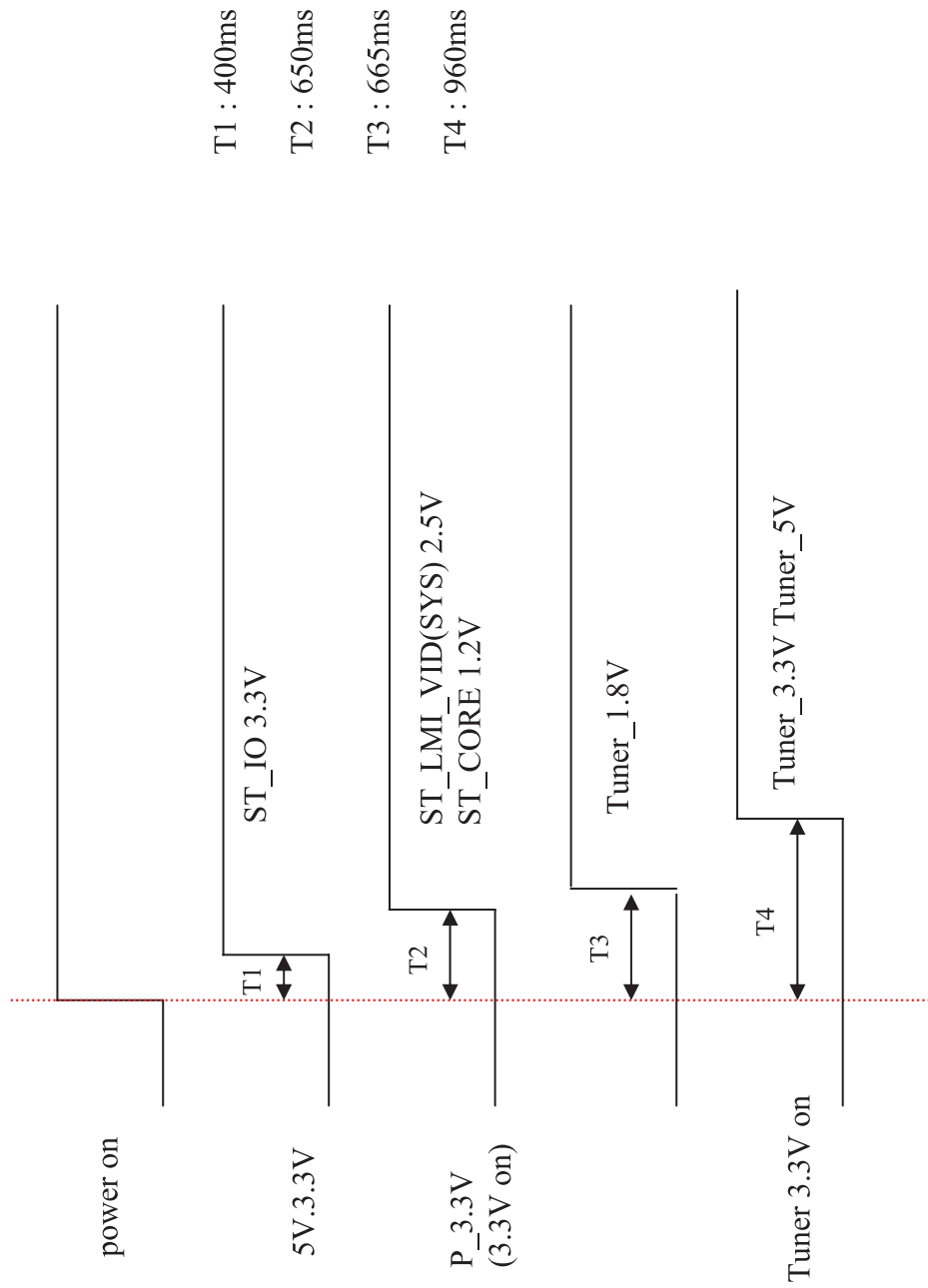
* Description

FOS Default write : <7mode data> write
 Vtotal, V_Frequency, Sync_Polarity, Htotal, Hstart, Vstart, 0,
 Phase
 Data write : Model Name and Serial Number write in
 EEPROM,.

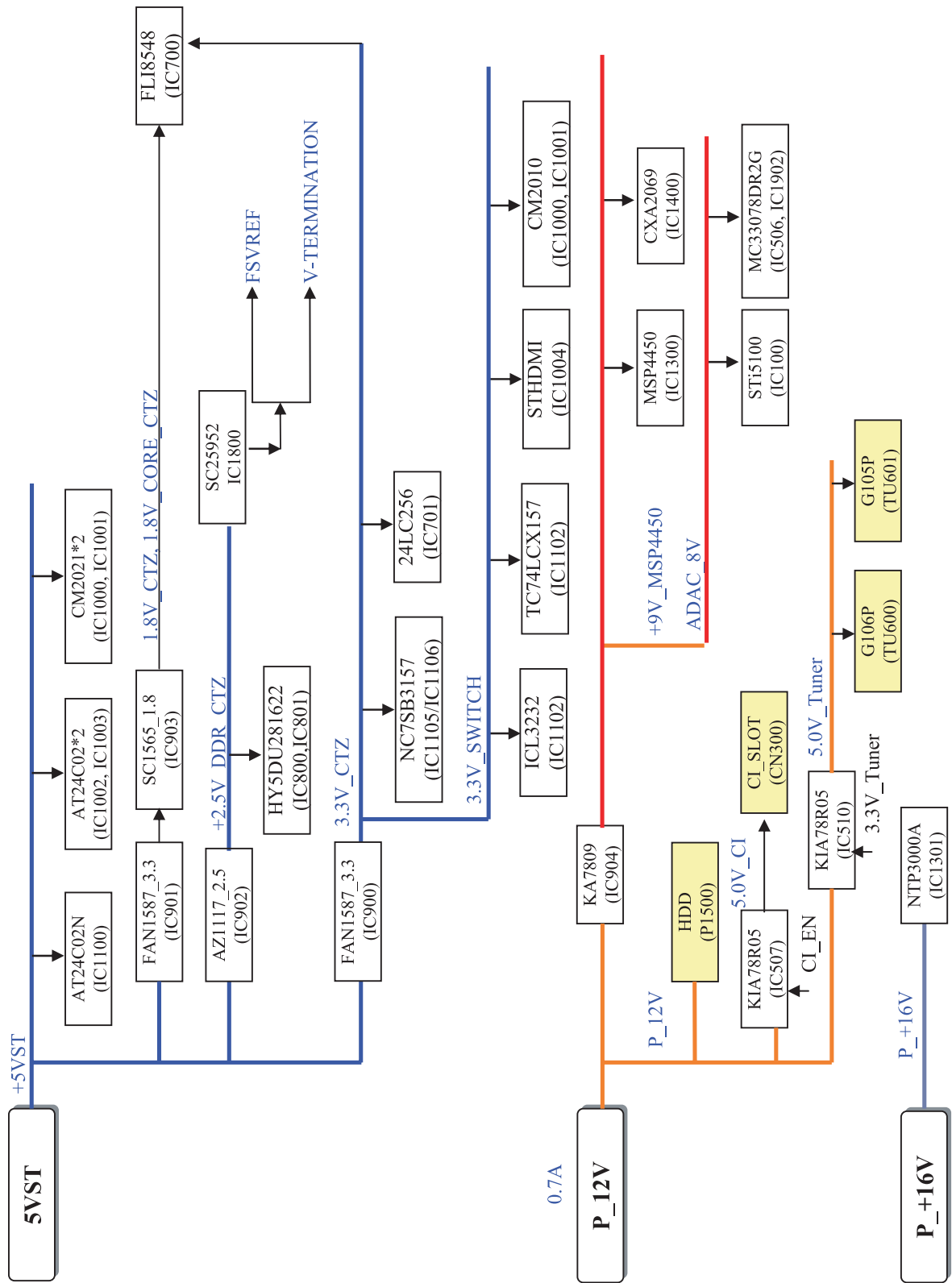
BLOCK DIAGRAM



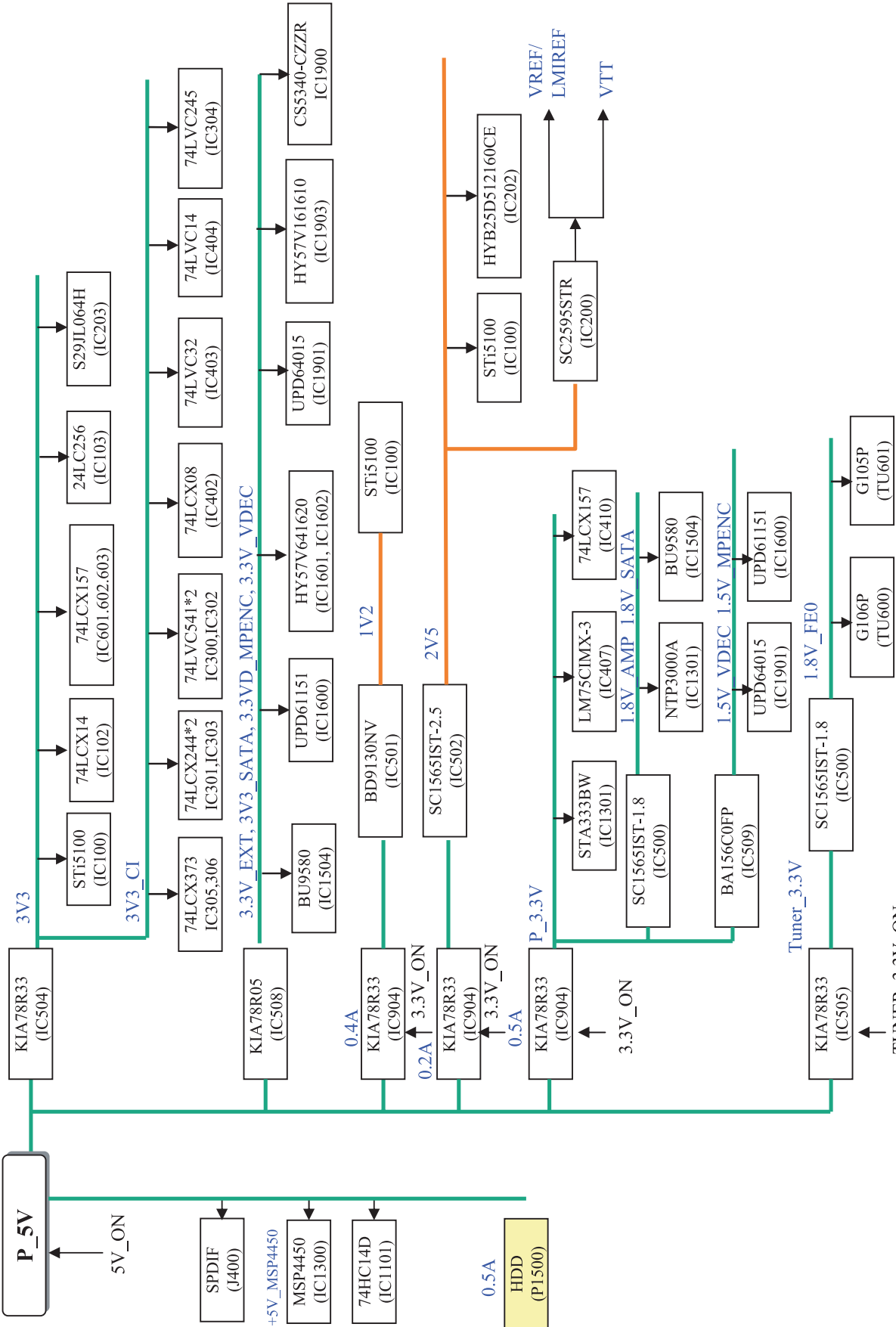
42PG6900 DVR Board Power Sequence



42PG6900 DVR Board Power



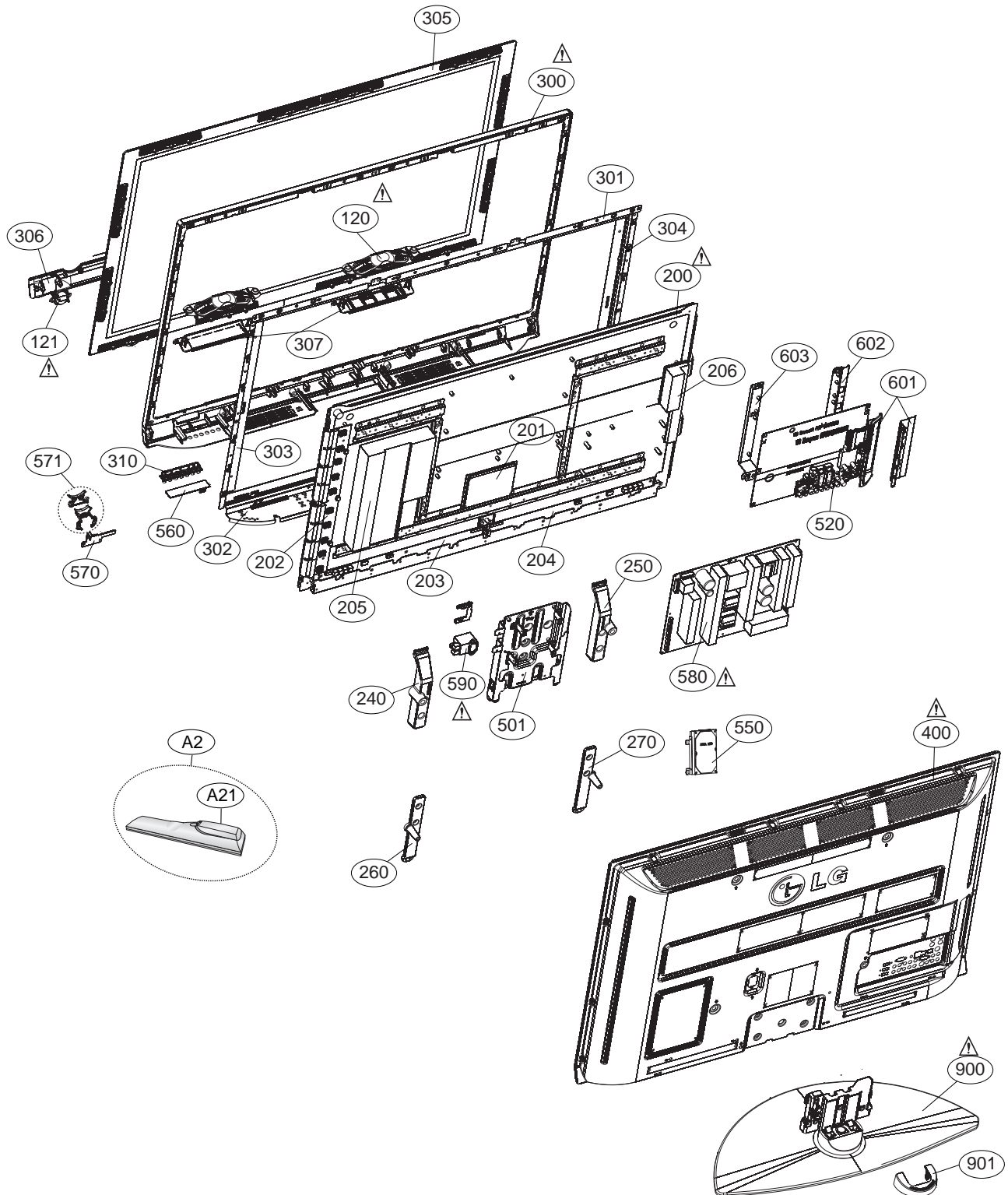
42PG6900 DVR Board Power

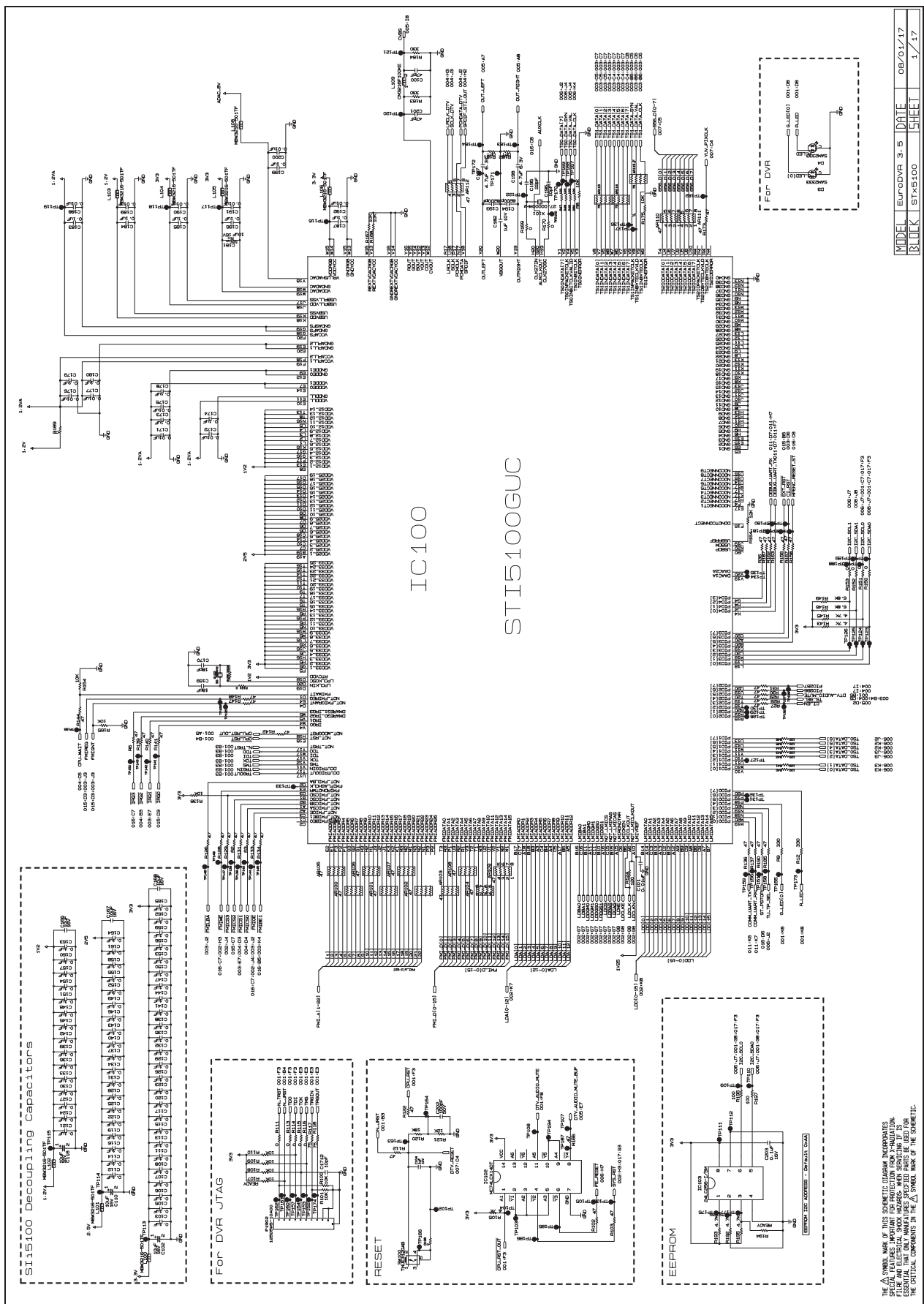


EXPLODED VIEW

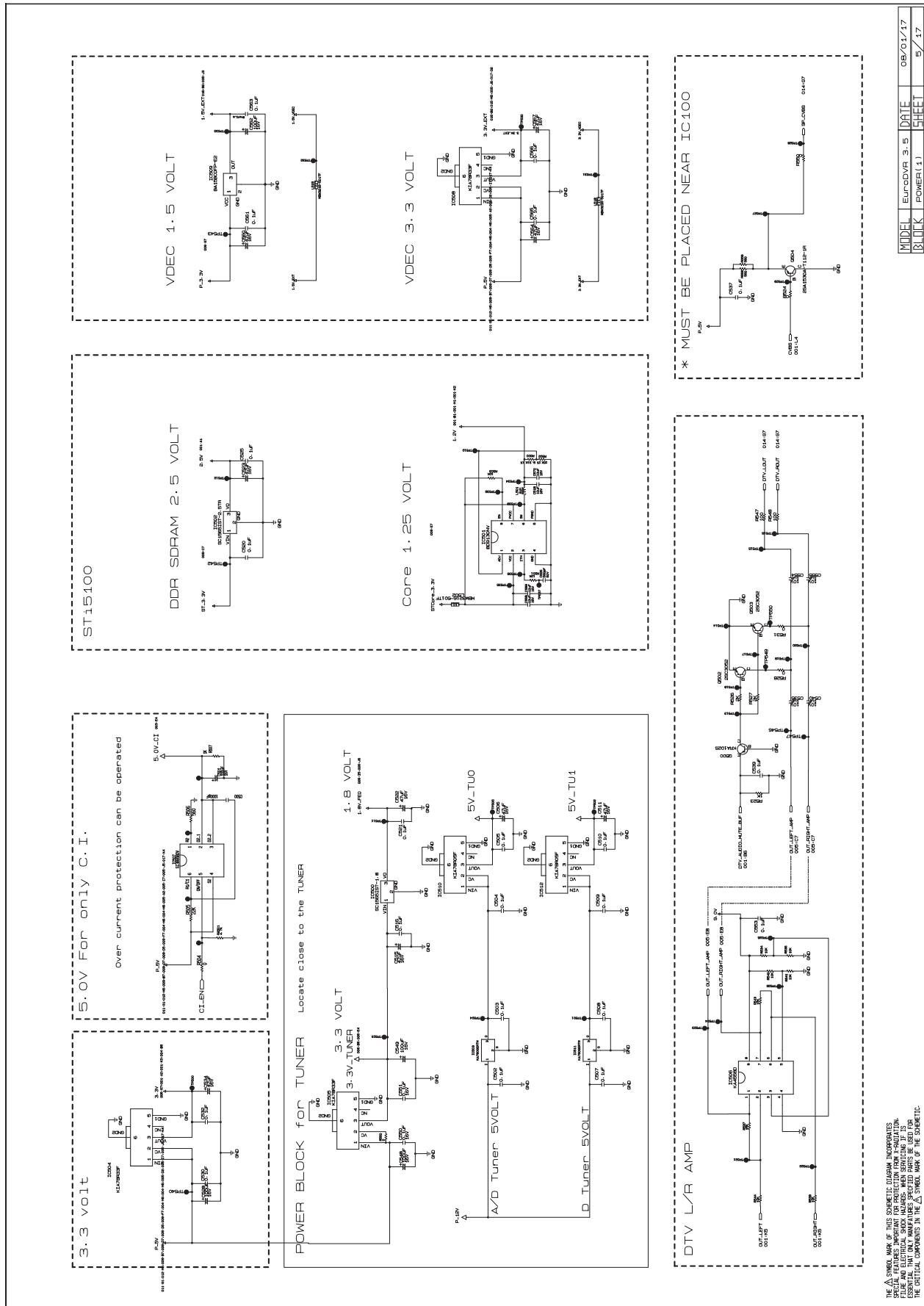
IMPORTANT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These parts are identified by Δ in the Schematic Diagram and EXPLODED VIEW. It is essential that these special safety parts should be replaced with the same components as recommended in this manual to prevent X-RADIATION, Shock, Fire, or other Hazards. Do not modify the original design without permission of manufacturer.



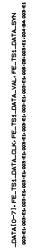


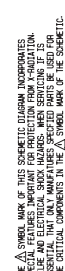




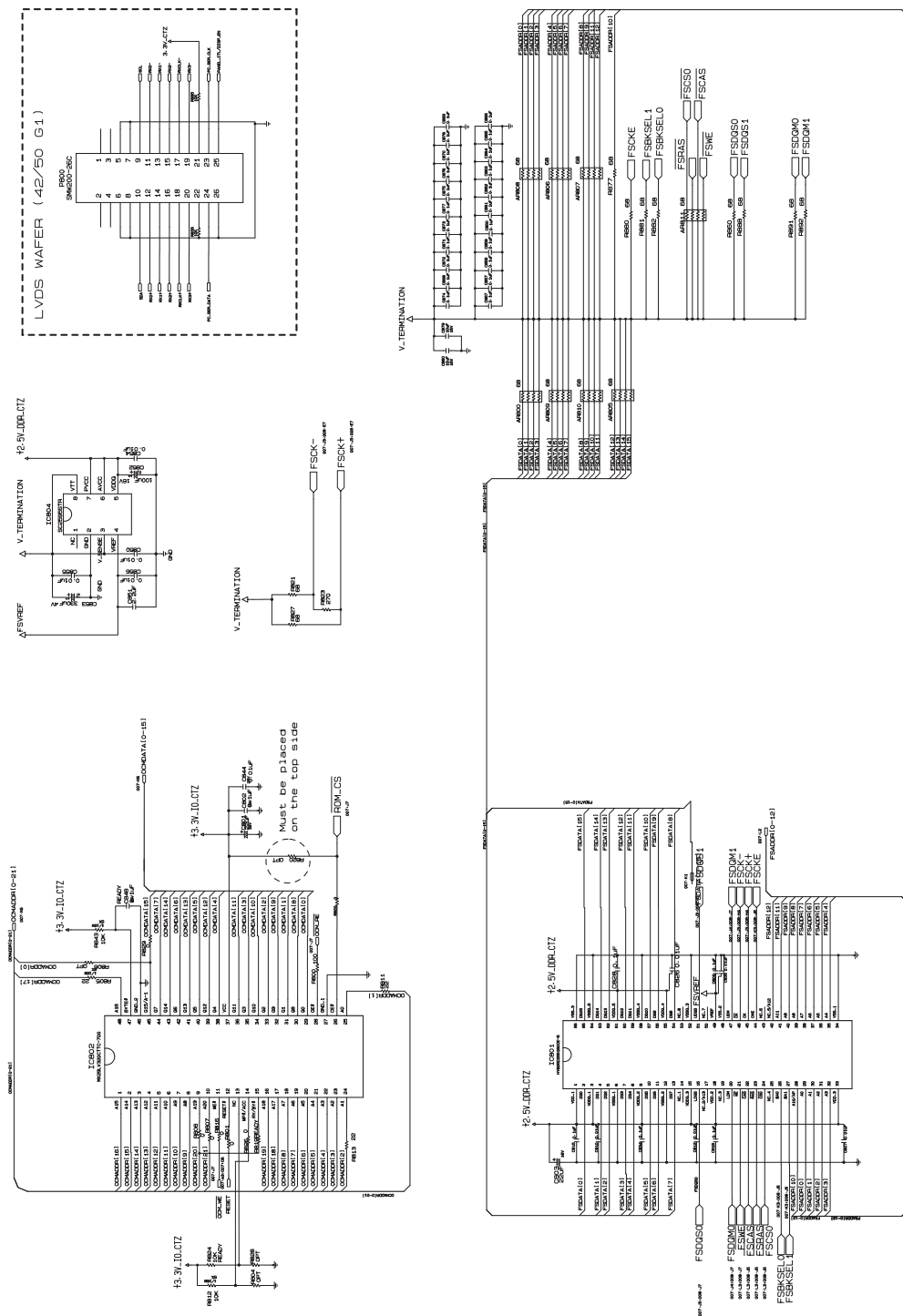
THE MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM FALSIFICATION. THESE FEATURES ARE THE RESULT OF A DESIGN PROCESS ESSENTIAL TO LG ELECTRONICS. ONLY AUTHORIZED SERVICE PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE MARK OF THE SCHEMATIC.

MODEL	EUP-DV9A 3-5	DATE	08/01/17
BLOCK	POWER (1)	SHEET	5 / 17





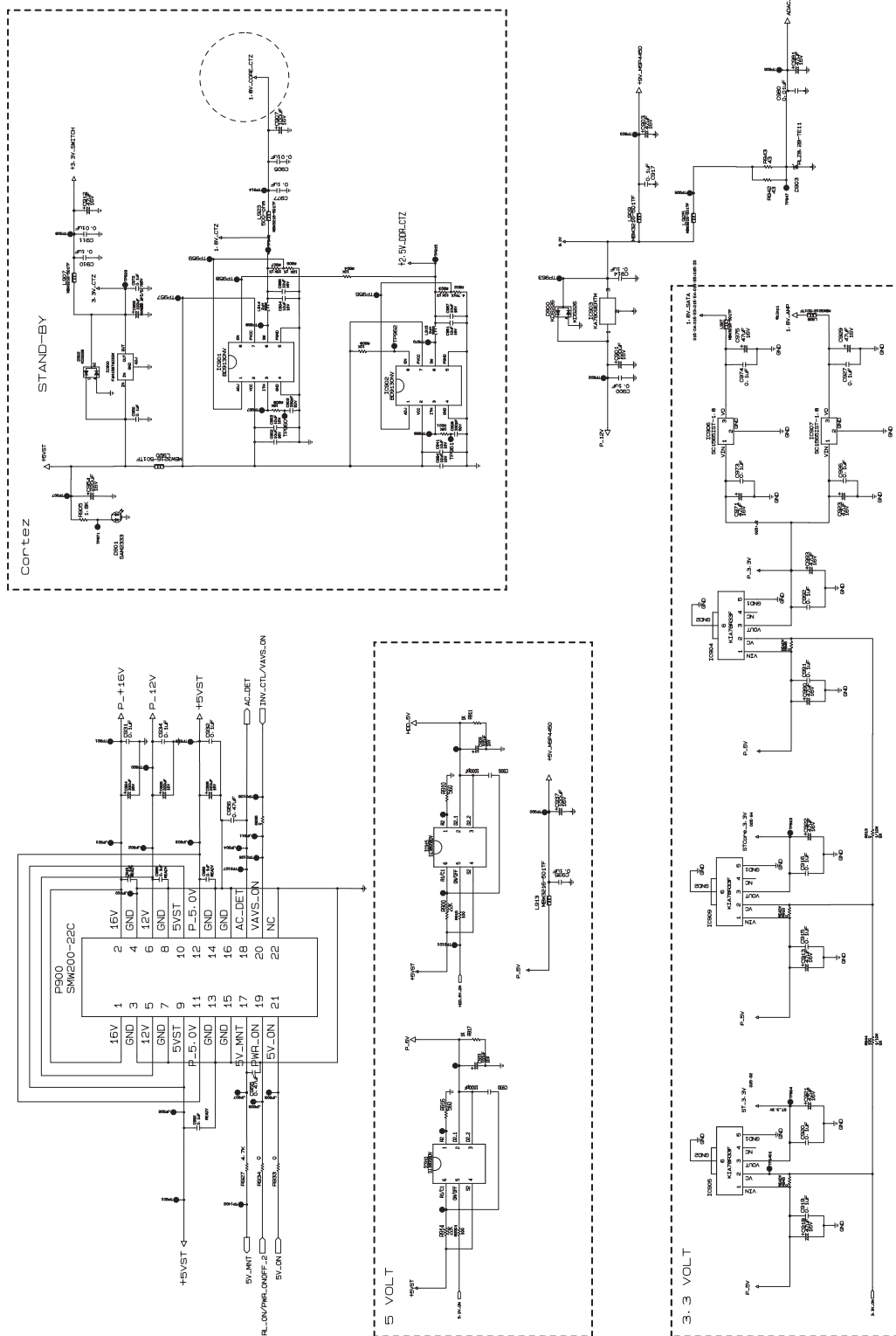
8. DDR&MEMORY&LVDS



THE Δ SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. IT IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE Δ SYMBOL MARK OF THE SCHEMATIC

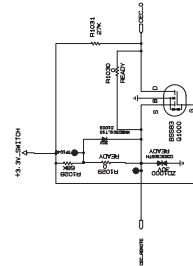
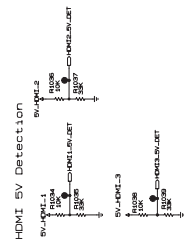
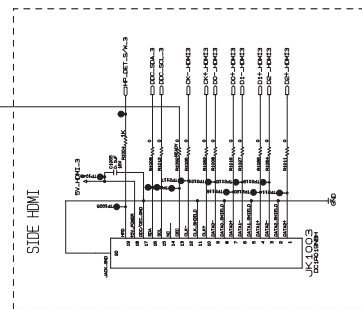
MODEL	EuroDVR 3.5	DATE	08/01/17
BLOCK	MEMORY (CORTEZ)	SHEET	8 / 17

9. POWER



THE Δ SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION, FULGE AND ELECTRICAL SHOCK HAZARDS. WHEN SERVICING, IT IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE Δ SYMBOL MARK OF THE SCHEMATIC.

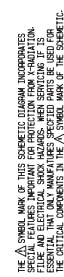
MODEL	EuroDVA 3.5	DATE	08/01/17
BLOCK	POWER(2)	SHEET	9 / 17

[illegible]

MODEL	EuroDVR 3.5	DATE	08/01/17
BLOCK	HDMI I/F	SHEET	10 / 17







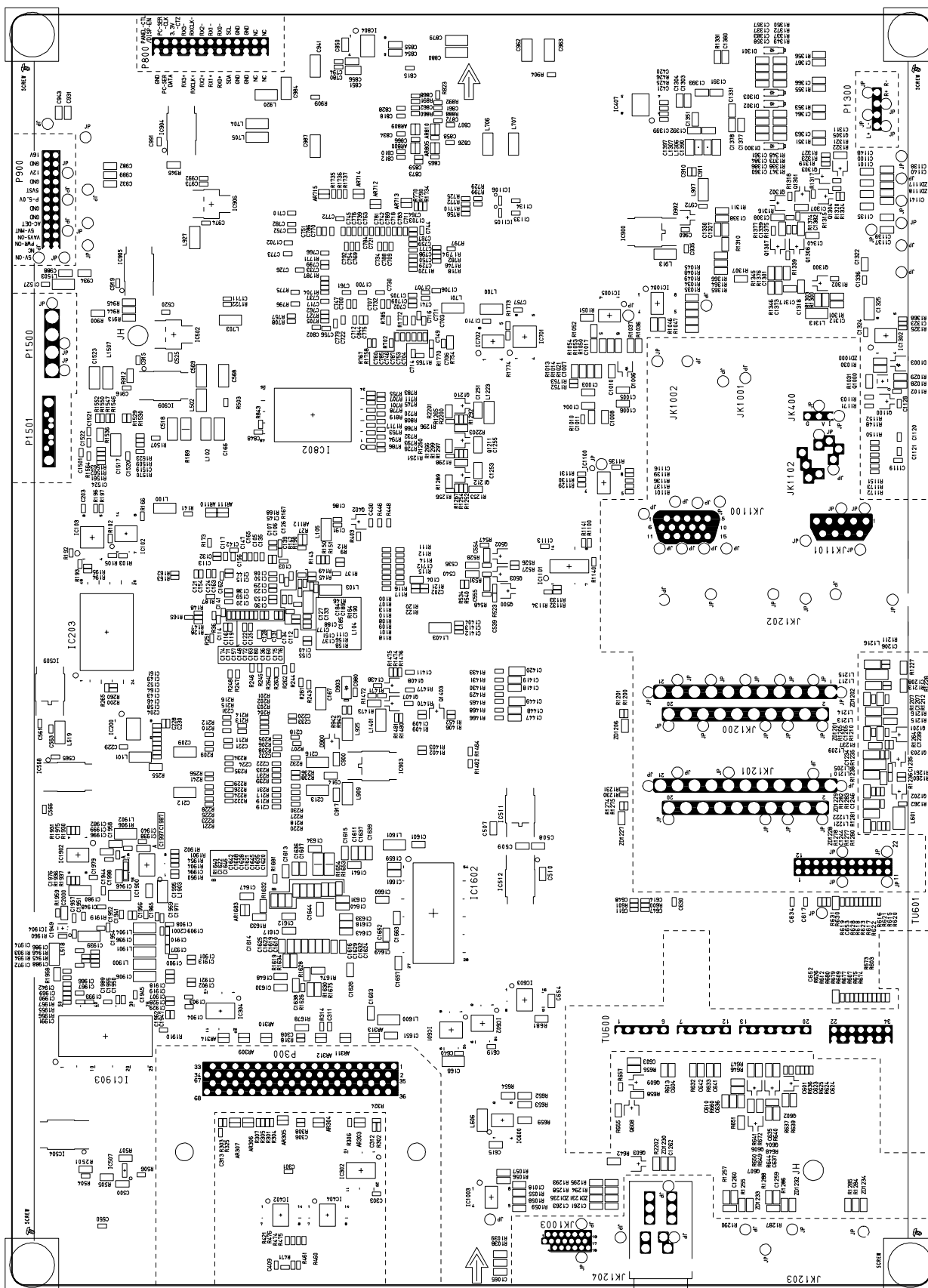


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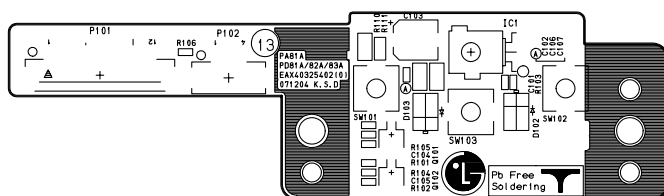


LGE Internal Use Only

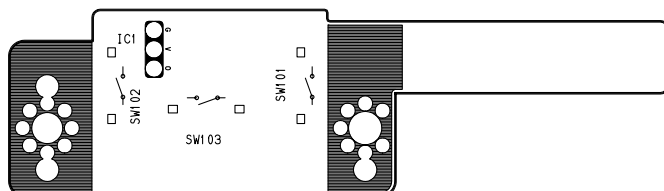
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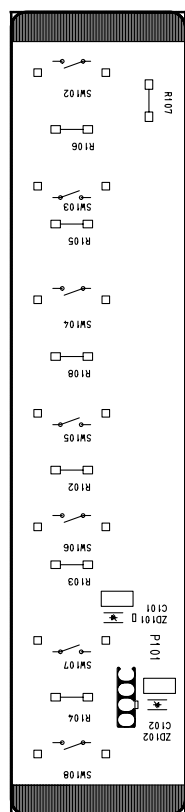
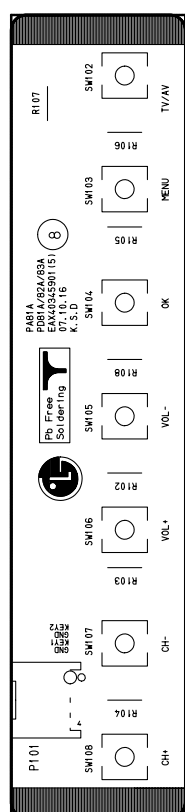
PRE-AMP(TOP)



PRE-AMP(BOTTOM)



CONTROL(TOP) CONTROL(BOTTOM)





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